REMARKS

This Amendment is submitted in response to the Office Action dated March 2, 2004. Claims 1-39 are pending in the application. All claims are rejected. Claims 29-30 and 38-39 have been cancelled from the application. Claims 1-28 and 31-37 remain in the application.

The Examiner objected to Claims 29-30 and 38-39 because it was unclear whether the claims were independent or dependent claims. Applicants have cancelled Claims 29-30 and 38-39 from the application and ask that the objection be withdrawn.

The Examiner rejected Claims 1, 4-5, 8-10, 26, 29, 32, and 38 under 35 U.S.C. § 103(a), as being unpatentable over Ismael (EP 0 915 419 A2) in view of an article entitled, Comparing Microsoft Transaction Server to Enterprise JavaBean, Last Updated 7/30/98, (hereinafter, "MC"). The Examiner concluded that Ismael disclosed all of Applicants' invention except single or multiple usage of a software component, home interface and remote interface of software component hidden from a client program. The Examiner concluded that the MC reference teaches single or multiple usage of software components, and that it would have been obvious to combine the teaching of Ismael and the MC reference because it would enable a client program to handle

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hundreds or thousands of clients.

Applicants respectfully traverse the rejection of Claims 1, 4-5, 8-10, 19, 26, and 32 as being unpatentable over Ismael in view of the MC reference. Ismael discloses a technique for remotely accessing, controlling and modifying any beans. (See Ismael, Col. 1, Lines 45-47). Ismael discloses a client workstation that communicates with a remote target object over a network. (See Ismael, Col. 3, Lines 6-27). The remote target object includes a framework where the remote target object is registered along with an associated network adapter. The client object, accessible by the client workstation, is associated with an appropriate network adapter in the framework. The client object disclosed in Ismael contains identification of methods of the target object along with implementation methods. (See Ismael, Col. 27, Lines 24-32). The client object disclosed in Ismael operates in a manner far different than the access bean disclosed in Applicants' invention.

The MC reference is a paper analysing the similarities and differences between the Microsoft Transaction Server (MTS) and Sun Microsystems's Enterprise JavaBeans (EJB). The Examiner records, 7/30/1998, as the publication date of the paper. Applicants respectfully assert that this date is not an effective reference date against the claimed invention. The date is effective only to show the author made no changes to the paper

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after that date. Applicants have visited multiple web sites in
an attempt to establish the effective publication date of the
article without success. Applicants respectfully request removal
of the article as a reference or the submission of a date
indicating the true publication date of the MC reference.

The MC reference describes the basic architecture and
terminology of both the MTS and EJB. The MC reference at Figure
1, Page 2, describes the MTS Executive, which manages the
Component Object model (COM) components. The MC reference shows
that a class factory is used to create specific instances of each
COM class. The reference further shows that the MTS Executive
transparently inserts a wrapper object between each object it
manages and that object's client (See MC, Page 3, Lines 1-3).
The MC reference discloses that when a client uses the COM
IClassFactory interface to create an instance of a MTS object,
that call is actually made on a factory wrapper object
implemented by MTS, which in turn passes on the call to the real
class factory. The MC reference also discloses that the MTS
wrapper object is like that used for the EJB (See MC, Page 3,
Lines 19-23). More specifically, the MC reference states that,
"Like MTS, the EJB container provides a wrapper for each bean it
manages. An EJB Home object wraps the bean's Home interface,
while an EJB Object wraps the bean's business methods." (See MC,
Page 3, Lines 19-21). The wrapper described in the MC reference

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is illustrated in Applicants' discussion of the typical prior art (See Specification, Page 3, Line 28 through Page 4, Line 7), and is not that shown in the claimed invention.

Applicants' invention provides access to remote enterprise beans by hiding the complexity of the bean in a simple Java bean wrapper called an Access Bean. (See specification, Page 7, Lines 14-16). The Access Bean does this by hiding the home and remote interfaces of the enterprise bean from client applications attempting to use the enterprise bean. (See Specification, Page 16-19). A software developer/user first chooses a particular enterprise bean to create Applicants' Access Bean. (See Specification, Page 15, Lines 24-28). The application developer than chooses the type of Access Bean to create. If the enterprise bean is to be used once, a Type 1 Access Bean is created (See Specification, Page 15, Lines 28-30). If the enterprise bean is to have multiple instances, then the user creates a Type 2 or Type 3 Access Bean. (See Specification, Page 16, Lines 1-3). The user than chooses the appropriate home interface with the appropriate setter method to complete creation of the Access Bean (See specification, Page 16, Lines 5-19). Applicants' invention thus provides an Access Bean that completely hides the home interface and remote interface of the enterprise bean from a client program (See Specification, Page 10, Lines 19-21). Unlike the client object disclosed in Ismael,

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Applicants' Access Bean does not require knowledge of remote beans via an object registration procedure. The client object in Ismael appears to be nothing more than the proxy object described in Applicants' specification with the addition of a registration procedure to allow identification of all remote objects available to an application program (See Specification, Page 3, Line 28 through Page 4, Line 15). The MC reference adds nothing to Ismael because it simply restates the current state of the prior art. Applicants believe Ismael in view of the MC reference does not disclose the claimed invention and ask that the rejection of Claims 1, 4-5, 8-10, 19, 26, and 32 under 35 U.S.C. § 103(a) be withdrawn.

Applicants respectfully traverse the rejection of Claims 6, 7, 11-14, 20 and 33-34 under 35 U.S.C. § 103(a) as being unpatentable over Ismael in view of the MC reference and in view of APA. The Examiner stated that Ismael and MC do not teach a second server connected to said first server but APA teaches a second server connected to said first server.

Ismael discloses a technique for accessing remote object using a client object, which acts as a proxy for the remote object. A registration procedure is provided for all remote objects available to client applications (See Ismael, Col. 3, Lines 21-37). The MC reference does nothing more than describe the state of the prior art as discussed in Applicants'

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specification. Even if the combination suggested by the examiner were attempted, it still would not yield Applicants' invention. Applicants' invention provides the user with a procedure for choosing a wrapper for creation of an Access Bean. This choice allows the user to select whether the cache is created for an enterprise java bean. Applicants' invention further describes how the method is placed on a second server. No such capability exists for the combination suggested by the Examiner. Consequently, Applicants believe the rejection of Claims 6, 7, 11-14, 20 and 33-34 is improper and ask that the rejection be withdrawn.

The Examiner rejected Claims 2, 3, 15, 16, 18, 21, 22, 23, 30, and 31 under 35 U.S.C. § 103(a) as being unpatentable over Ismael in view of the MC reference and still further in view of APA and further in view of Knutson (US 6,557,100). The Examiner stated that neither Ismael nor MC disclosed caching attributes. The Examiner applied the Knutson patent for the disclosure of a cache. The Examiner concluded that one skilled in the art would combine the references because this would reduce the redeployment time spent in distributed data processing systems.

Applicants respectfully traverse the rejection of Claims 2, 3, 15, 16, 18, 21, 22, 23, and 31 under 35 U.S.C. § 103(a) as being unpatentable over Ismael in view of MC and further in view of Knutson. Ismael discloses a technique for accessing remote

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object using a client object, which acts as a proxy for the remote object. A registration procedure is provided for all remote objects available to client applications (See Ismael, Col. 3, Lines 21-37). The MC reference discusses the prior art operation of the MTS and EJB. The Knutson reference discloses a technique for reducing the time required to deploy enterprise java beans (EJB). Knutson caches a copy of a previously deployed EJB on the server. The Knutson reference has determined that if the home and remote interfaces have not changed, it is not necessary to regenerate IDL, stubs, skeletons, container management code (See Knutson, Page 4, Lines 29-40). Applicants' invention avoids the need to cache all previously deployed EJBs as disclosed in Knutson. Instead, Applicants' invention provides user selectable caches. Applicants' invention provides three types of Access Beans. (See specification, Page 11, Lines 12-14). Type 1 Access Beans are created and are consumed without a cache. Types 2 and 3 Access Beans are created and utilise a cache to store a local copy of attributes from a remote enterprise bean. (See specification, Page 11, Lines 14-28. No combination of the references, taken singularly or in combination, discloses Applicants' invention for creating EJBs where the cache creation is optional, and Applicants asks that the rejection be withdrawn.

The Examiner rejected Claims 17, 24, 35 and 36 under 35 U.S.C. § 103(a) as being unpatentable over Ismael in view of APA

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and in view of Knutson and further in view of Gruber (U.S. Pat. 6,115,793). The Examiner stated that Ismael does not teach the cache location index and applied the Gruber reference for its disclosure of a cache location index. The Examiner concluded that it would have been obvious to apply the teaching of Gruber to Ismael in order to minimise the complexity and maximise the performance of the cache and to improve performance requires successive doubling of the size, and cost of cache memory.

Applicants respectfully traverse the rejection of Claims 17, 24, 35 and 36 under 35 U.S.C. § 103(a) as being unpatentable over Ismael in view of the MC reference and in view of Knutson and further in view of Gruber (U.S. Pat. 6,115,793). Ismael discloses a technique for accessing remote object using a client object, which acts as a proxy for the remote object. A registration procedure is provided for all remote objects available to client applications (See Ismael, Col. 3, Lines 21-37). The Knutson reference discloses a technique for reducing the time required to deploy enterprise java beans (EJB). Knutson caches a copy of a previously deployed EJB on the server. The Knutson reference has determined that if the home and remote interfaces have not changed, it is not necessary to regenerate IDL, stubs, skeletons, container management code (See Knutson, Page 4, Lines 29-40). Gruber discloses a cache memory system, which minimizes the latency and latency uncertainty of data

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memory access by allocating spare cache memories to subsequent

conflicting requests (See Gruber, Abstract). Even if the

combination suggested by the examiner were attempted, it still

would not yield Applicants' invention. Applicants' invention

provides the user with a procedure for choosing a wrapper for

creation of an Access Bean. This choice allows the user to

select whether the cache is created for an enterprise java bean.

No such capability exists for the combination suggested by the

Examiner. Consequently, Applicants believe the rejection of

Claims 17, 24, 35 and 36 is improper and ask that the rejection

be withdrawn.

The Examiner rejected Claims 27, 28, and 39 under 35 U.S.C.

§ 103(a), as being unpatentable over Ismael in view of the MC

reference and further in view of Housel (U.S. Patent No.

6,061,714) and still further in view of Knutson and in view of

APA. The Examiner stated that Ismael does not teach table entry

or cache synchronising and applied the Housel reference. The

Examiner concluded that application of the Housel reference

allows for a reduced volume of data for transmittal and thereby

increase the performance of the communication systems.

Applicants respectfully traverse the rejection of Claims 27

and 28 under 35 USC 103(a) as being unpatentable over Ismael in

view of the MC reference and further in view of Housel and still

further in view of Knutson. Housel discloses a technique for

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persistent cache synchronization in connection with

communications over an external communication link between an

application executing on a first computer and an application

executing on a second computer located remote from the first

computer (See Housel, Col. 2, Lines 26-32). Housel discloses a

checkpoint protocol allowing the use of a protocol cache from a

previous session on new session start up rather than having to

start with no cache (sometimes referred to as a "cold cache).

(See Housel, Col. 2, Lines 32-36). It is unclear how the Housel

disclosure, which is directed to terminal to host communications,

is related in any way to Ismael which is directed to the

generation of a proxy client object. Applicants request details

for how each reference is combined to create the claimed

invention. Applicants respectfully assert that hindsight

reconstruction using Applicants' invention as a template is

improper. Nevertheless, even if the combination were attempted,

it would not yield Applicants' invention. Applicants' invention

allows user/developer selection for cache creation within an

access bean. No such capability is provided by the combination

of the references, taken singularly or in combination.

Consequently, Applicants believe the rejection of the Claims is

improper and ask that the rejection be withdrawn.

In view of the above, it is respectfully submitted that this

application is in condition for allowance. Accordingly, it is

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respectfully requested that this application be allowed and a

timely notice of allowance issued. If the Examiner believes that

a telephone conference with Applicant's attorneys would be

advantageous to the disposition of this case, the Examiner is

requested to telephone the undersigned.

Respectfully submitted,

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